

Application No. 10/538,531  
Filed: November 30, 2005  
TC Art Unit: 1645  
Confirmation No.: 4249

REMARKS

Claims 1, 3-6, 9-10, and 12-13 are pending. Claims 2, 7-8, 11, and 14-16 were previously canceled. Claims 5, 10, and 12-13 are withdrawn as directed to a non-elected invention.

Claim 1 has been amended to specify that the membrane fraction is isolated by sonication and centrifugation. The amendment is supported, for example, by Example 9 at pages 19-20 of the present specification, describing a membrane preparation of *Rhodospirillum rubrum* made by sonication and centrifugation that was administered to mice and found to be effective as a cholesterol lowering agent. No new matter has been added.

Applicants note that all of the previous objections and rejections have been withdrawn. The claims have been newly rejected as allegedly anticipated and obvious in view of newly cited references. The rejections are respectfully traversed, and their reconsideration and withdrawal are requested in view of the amendment to the claims and the arguments presented below.

Rejection Under 35 U.S.C. 102(b)

Claims 1, 3, and 4 are rejected as allegedly anticipated by Zurdo et al., who teach an isolated membrane preparation of *R. rubrum* containing intracytoplasmic membrane vesicles. However,

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the actual method of making the Zurdo membrane fraction is different than the membrane fraction present in the claimed preparation and as described in the current application. Zurdo et al. prepare intracytoplasmic membranes of *R. rubrum* using a French press to disrupt the cells followed by differential centrifugation to produce a fraction of intracytoplasmic membranes, as described in Zurdo et al. on page 1991, right column, at lines 6-9. In contrast, the membrane fraction as recited in the present claims is produced by sonication to disrupt the cells followed by centrifugation. The two preparations are different because they result from different cell homogenization and centrifugation procedures. Therefore, Zurdo et al. does not anticipate the present claims.

Rejections Under 35 U.S.C. 103(a)

Claims 1, 3, and 4 are rejected as allegedly obvious over Zurdo et al. in view of the ATCC bacteria catalog and Imhoff et al. Zurdo et al. is cited as teaching a preparation of *R. rubrum* intracytoplasmic membrane vesicles, as discussed above. However, Zurdo et al. do not teach the isolation of membranes from *Phaeospirillum* spp. The ATCC catalog teaches certain species of *Rhodospirillum* that, according to Imhoff, have been reclassified

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as *Phaeospirillum*. The Office Action argues that it would have been obvious to substitute the *Phaeospirillum* spp. disclosed by Imhoff and ATCC into the method of Zurdo to produce intracytoplasmic membrane preparations from *Phaeospirillum* spp.

As argued for the novelty rejection above, the presently cited references do not teach or suggest the preparation of the present claims, because they do not teach an isolated membrane fraction made by sonication and centrifugation. Therefore, the references do not support a prima facie case of obviousness.

Further, the presently claimed preparation is inventive over Zurdo et al., in view of the ATCC catalog and Imhoff et al., since the references only teach that the membrane fraction can be used to study carotenoids, and do not mention any use of the preparation as a medicament. Further, it is questionable whether, due to the preparation and treatment of the membrane fraction as described in Zurdo et al., the membrane fraction would still be able to exert this pharmaceutical use, such as for lowering plasma cholesterol.

Claims 1, 6, and 9 are rejected as allegedly obvious over Zurdo et al. in view of the ATCC bacteria catalog and Imhoff et al., and further in view of Schmidt-Dannert et al. and Wang et al.

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The Office Action states that the Zurdo-ATCC-Imhoff combination does not teach a preparation containing *Rhodospirillum* spp. and *Phaeosporillum* spp. or a foodstuff or food supplement containing a preparation derived from *Rhodospirillum* spp. and/or *Phaeosporillum* spp.


For the same reasons outlined above, this combination of references also fails to provide a *prima facie* case of obviousness. The defects of Zurdo are not remedied by any of ATCC, Imhoff, Schmidt-Dannert, Wang, or any combination thereof. Moreover, in applying Wang, which allegedly teaches the use of *Rhodospirillum* spp. as a food additive, the Office Action states that the *Rhodospirillum* spp. of Wang et al., "inherently comprises" a membrane fraction. However, a disclosure of the use of whole cells in a food additive or supplement does not signify that administering only an isolated component of such cells would have the same effect as the whole cell preparation. One cannot predict from Wang et al. whether any of the components removed during the membrane isolation process are relevant to the use as a food additive.

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Reconsideration of the rejections and allowance of the pending claims is respectfully requested. The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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